Applicants: Stemmler *et al*. Serial No.: 09/492,214

Filing Date: January 27, 2000

Amendment and Reply to Nonfinal Office Action

February 1, 2005 Page 2 of 9

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

## **Listing of Claims:**

Claim 1 (canceled)

Claim 2 (canceled)

Claim 3 (previously presented) The method according to Claim 42 in which the analyte comprises a nucleic acid.

Claim 4 (previously presented) The method according to Claim 44 in which the method is an immuno-affinity assay.

Claim 5 (currently amended) The method according to Claim 42 in which the analyte determination is performed or effected occurs in a volume of less than 1 µl.

Claim 6 (canceled)

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

Applicants: Stemmler *et al.* Serial No.: 09/492,214

Filing Date: January 27, 2000

Amendment and Reply to Nonfinal Office Action

February 1, 2005 Page 3 of 9

Claim 10 (currently amended) The method according to Claim 42 in which the labeled reagent competitive substance is a fluorescent labeled reagent.

Claim 11 (previously presented) The method according to Claim 42 in which the sample is in a liquid phase.

Claim 12 (previously presented) The method according to Claim 42 in which the solid phase is formed on a wall of a well in a sample carrier.

Claim 13 (previously presented) The method according to Claim 12 in which the carrier is a micro-titre or nano-titre plate.

Claim 14 (previously presented) The method according to Claim 12 in which the well has a quadratic, cylindrical, truncated pyramid or truncated cone shape.

Claim 15 (previously presented) The method according to Claim 12 in which the well has an aperture area and a floor area, the aperture area being smaller than the floor area.

Claim 16 (previously presented) The method according to Claim 15 in which the well has a truncated pyramid or truncated cone shape.

Claims 17 - 18 (canceled)

Claim 19 (previously presented) The method according to Claim 42 in which the measurement signal is obtained by spatially staggered measurement.

Claim 20 (canceled)

Applicants: Stemmler *et al.* Serial No.: 09/492,214 Filing Date: January 27, 2000

Amendment and Reply to Nonfinal Office Action

February 1, 2005 Page 4 of 9

Claim 21 (previously presented) The method according to Claim 42 in which a light beam is used to excite the sample, said light beam having a diameter of less than 40 µm.

Claim 22 (canceled)

Claim 23 (previously presented) The method according to Claim 21 in which a laser provides the light beam.

Claims 24 - 32 (canceled)

Claim 33 (previously presented) The method according to Claim 5 in which the volume is in the range of 50 to 100 nl.

Claim 34 (previously presented) The method according to Claim 13 in which the sample carrier is a nano-titre plate.

Claim 35 (previously presented) The method according to Claim 42 in which the quenching substance is a metal, dye or fluorescence-quenching substance.

Claim 36 (previously presented) The method according to Claim 23 in which the light beam has a diameter of about 20  $\mu$ m.

Claims 37 – 41 (canceled)

Claim 42 (currently amended) A method for quantitative or qualitative determination of an analyte comprising:

(a) incubating a sample containing the analyte with <u>a</u> labeled <del>reagent</del> <u>competitive</u> <u>substance</u> and a solid phase coated with a quenching substance, <u>wherein the solid phase</u>

Applicants: Stemmler et al.

Serial No.: 09/492,214

Filing Date: January 27, 2000 Amendment and Reply to Nonfinal Office Action

February 1, 2005

Page 5 of 9

further comprises an analyte-specific bonding partner immobilized thereto, such that the

analyte and so as to allow at least some of the labeled competitive substance reagent to

bind compete for binding to the analyte-specific bonding partner analyte, wherein the

quenching substance suppresses at least some of the signal from unbound labeled reagent

competitive substance bound to the solid phase;

(b) exciting the sample so as to generate signal from the bound labeled competitive

substance reagent; and

(c) measuring the signal generated from the bound labeled reagent competitive substance,

thereby quantitatively or qualitatively determining the analyte, wherein the determination

of the analyte is performed or effected without physically separating unbound and bound

labeled competitive substance reagent.

Claim 43 (previously presented) The method according to Claim 42, wherein the

quenching substance is gold, silver or graphite.

Claim 44 (currently amended) The method according to Claim 42, wherein the labeled

reagent competitive substance is selected from the group consisting of antigen, antibody,

nucleic acid, ligand or receptor.

Claims 45-59 (canceled)